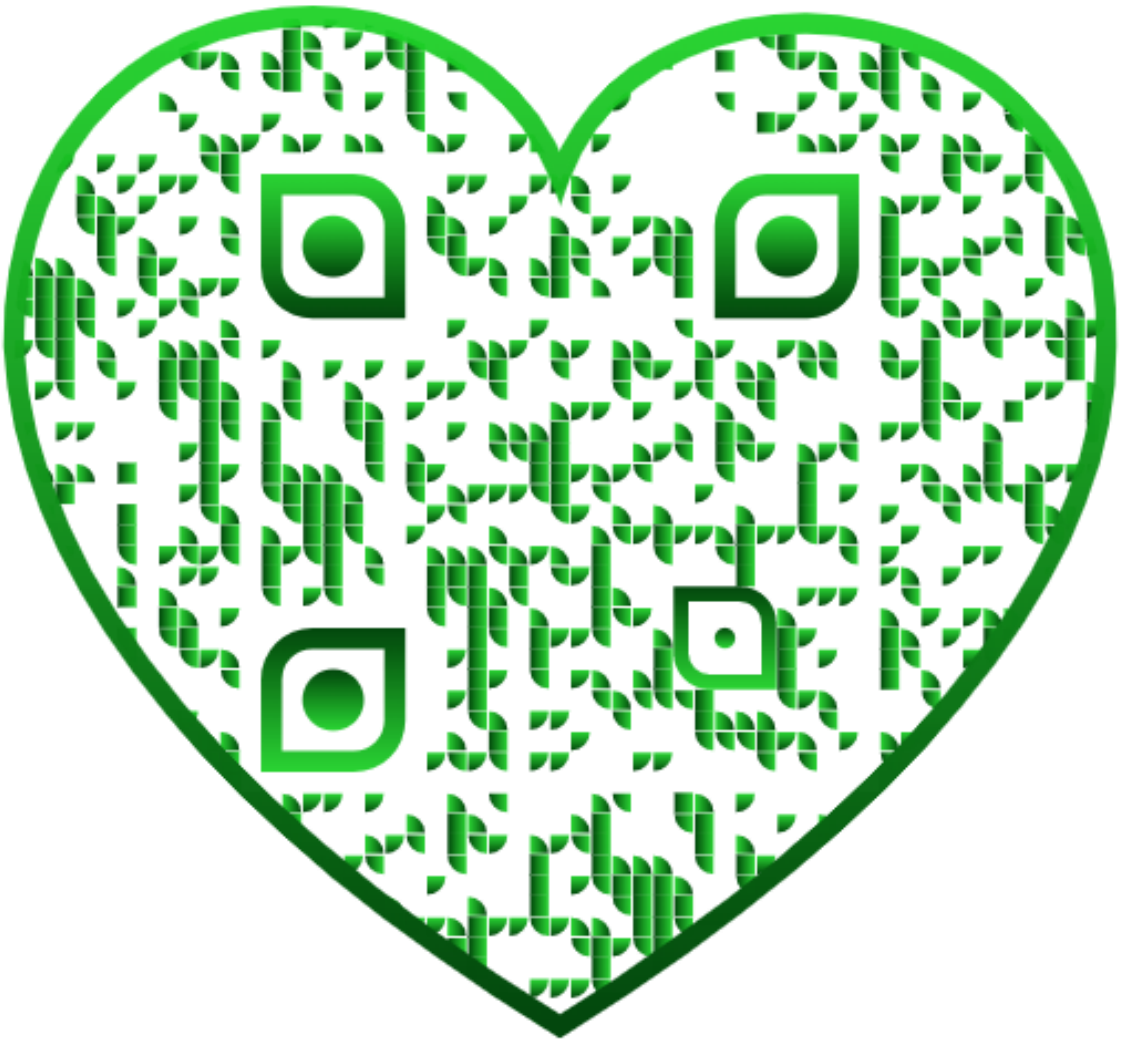
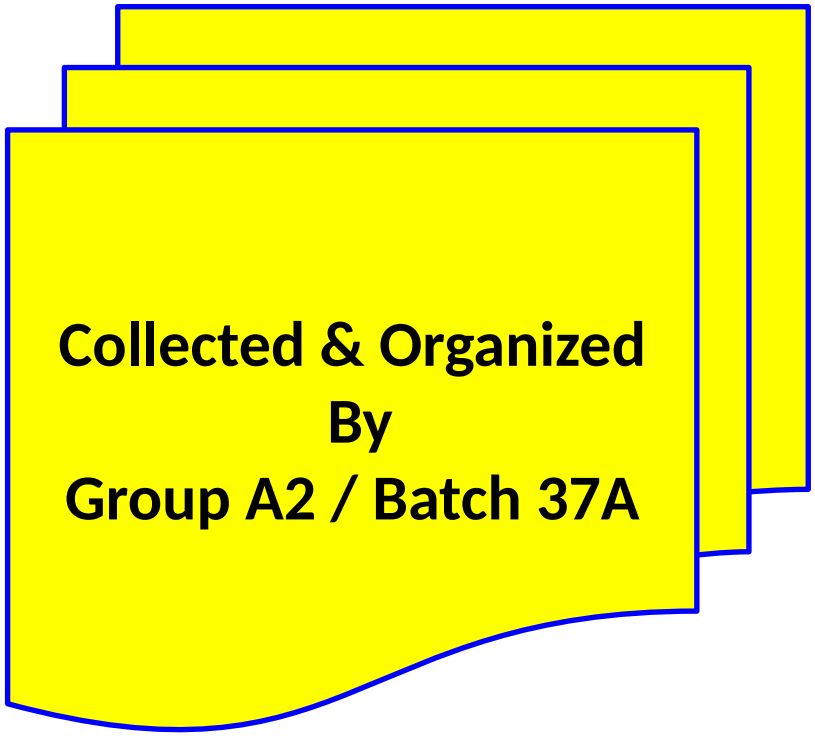
ANATOMY LAB OF THE PELVIS

Anatomy Lab



Special Appreciation To
The Batch 29 , Group
A9 / Batch 37A & Batch
37B


Collected & Organized
By
Group A2 / Batch 37A

GLANCE REVIEW

Anatomy Lab

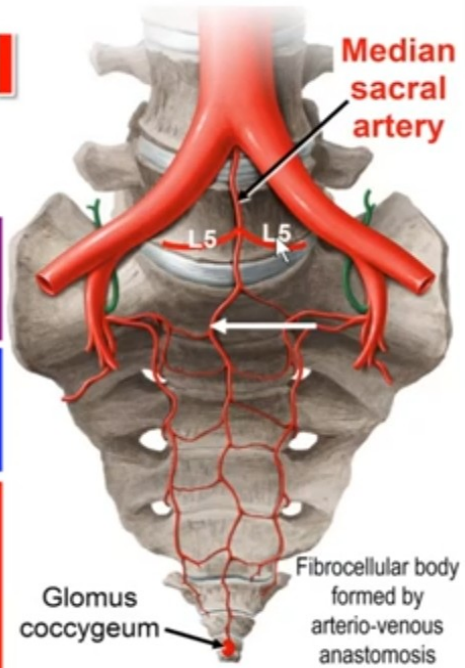
Arterial Supply Of The Pelvis

Median Sacral Artery

Origin: abdominal aorta opposite L4

Terminaton: in front of the coccyx at glomus coccygeum

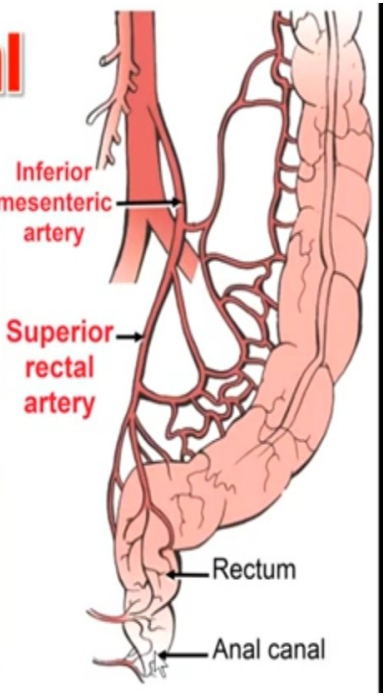
Branches:
1. 5th lumbar artery
2. Branches to rectum and sacral canal



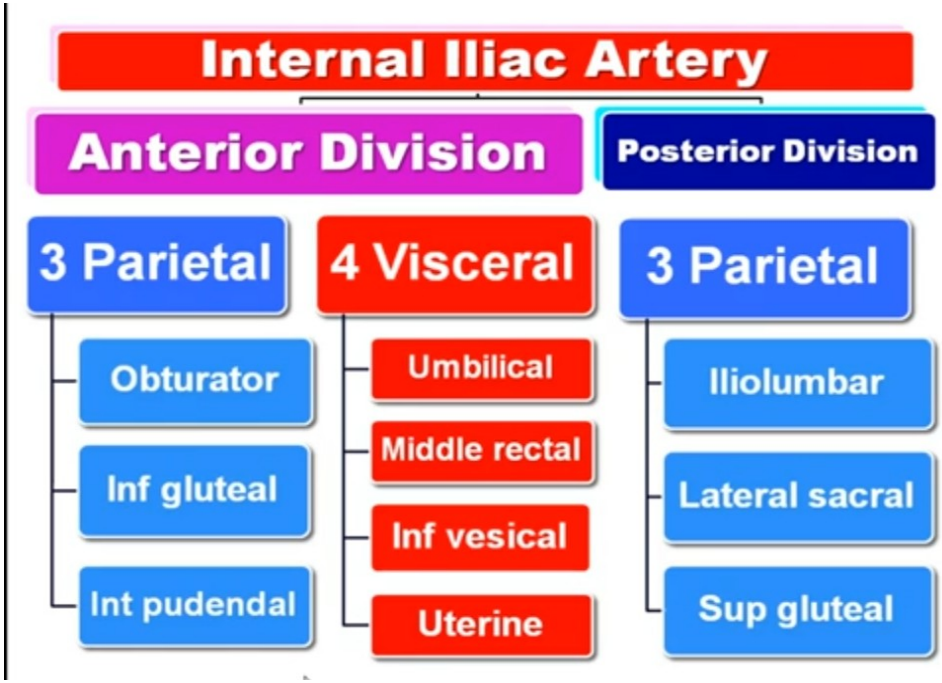
Superior Rectal Artery

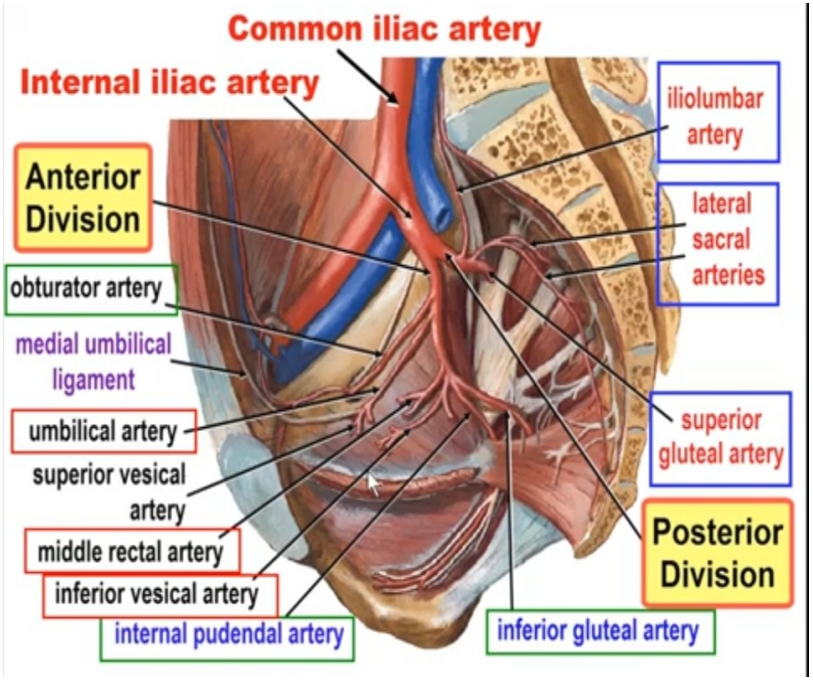
Origin:
Continuaton of the inferior mesenteric artery

Branches:
1. Rectum
2. Upper half of the anal canal

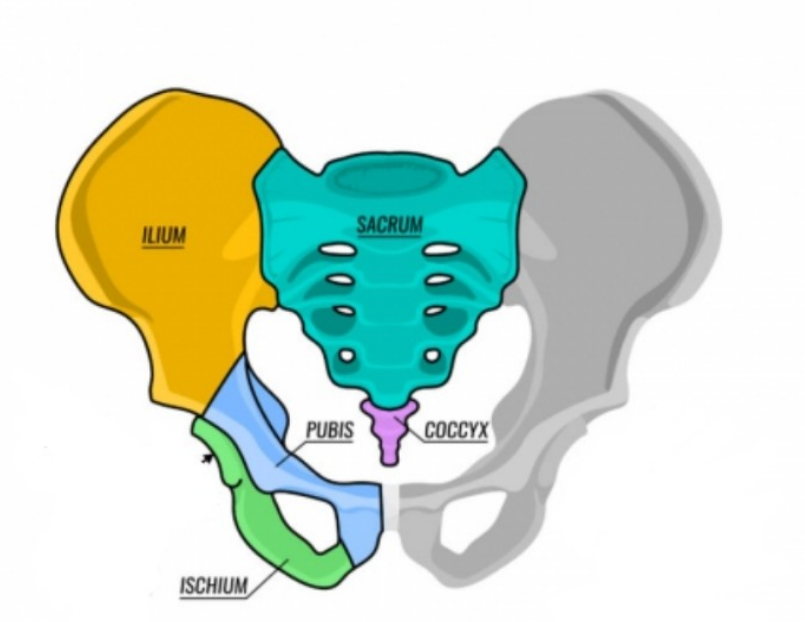


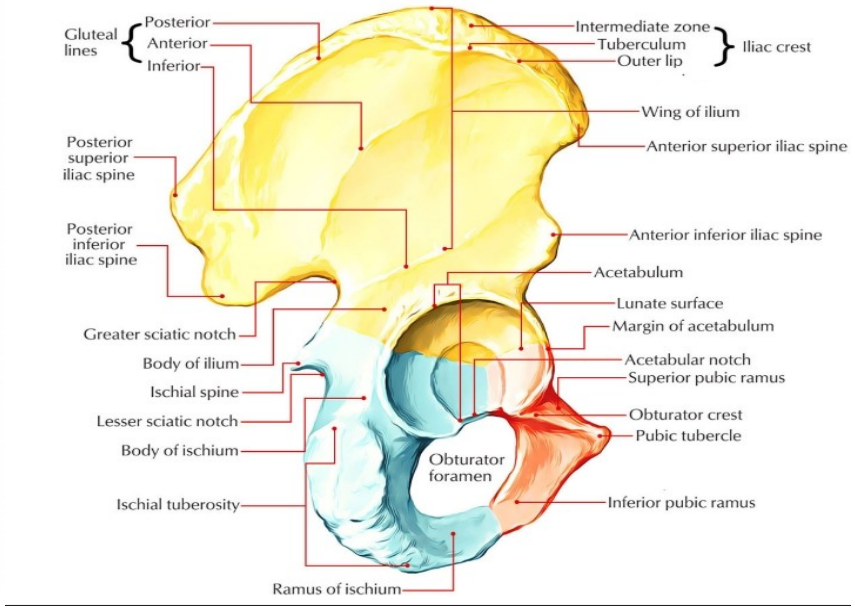
Follow


Internal Iliac Artery
Anterior Division
Posterior Division
3 Parietal
4 Visceral
3 Parietal
Obturator
Inf gluteal
Int pudendal
Umbilical
Middle rectal
Inf vesical
Uterine
Iliolumbar
Lateral sacral
Sup gluteal

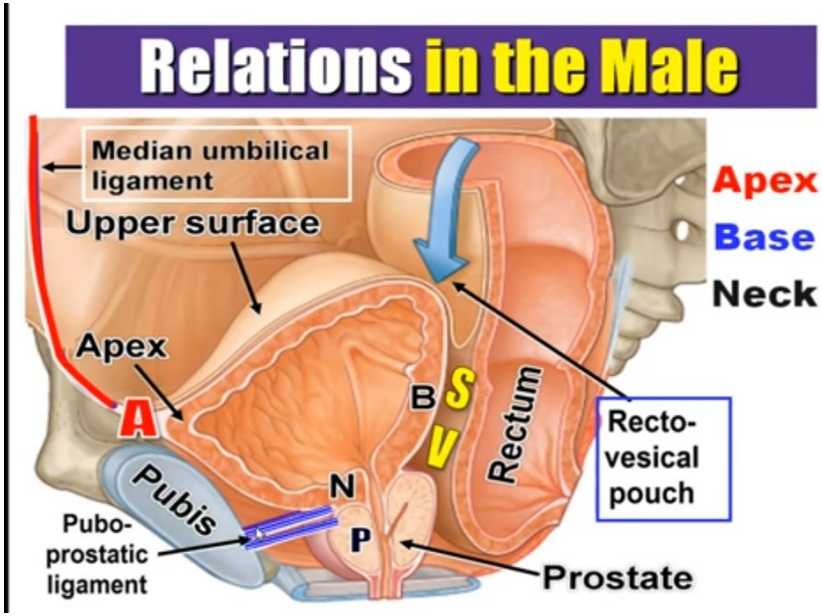

Common iliac artery
Internal iliac artery
iliolumbar artery
Anterior Division
lateral sacral arteries
obturator artery
medial umbilical ligament
umbilical artery
superior vesical artery
middle rectal artery
inferior vesical artery
internal pudendal artery
superior gluteal artery
Posterior Division
inferior gluteal artery

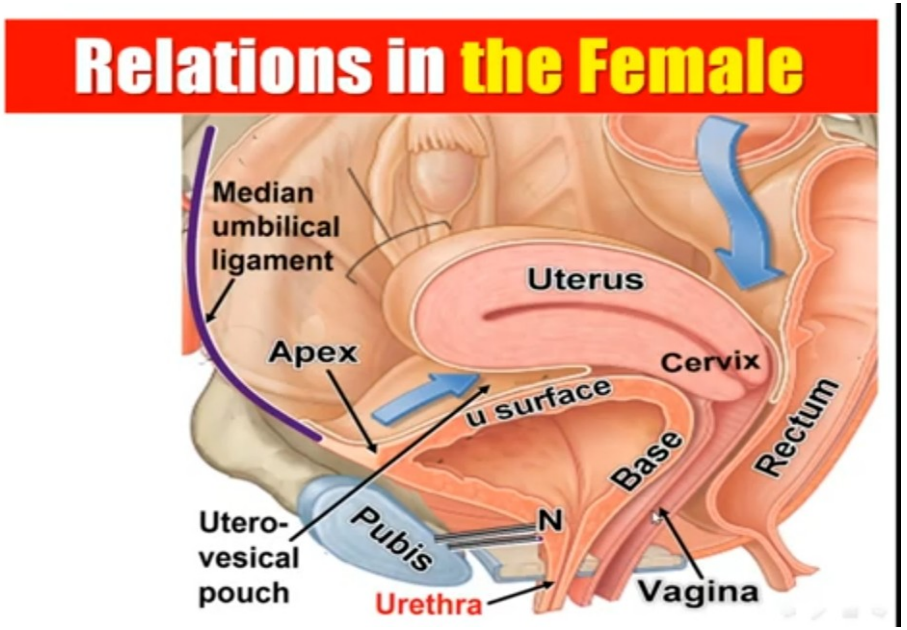
Bones Of The Pelvis



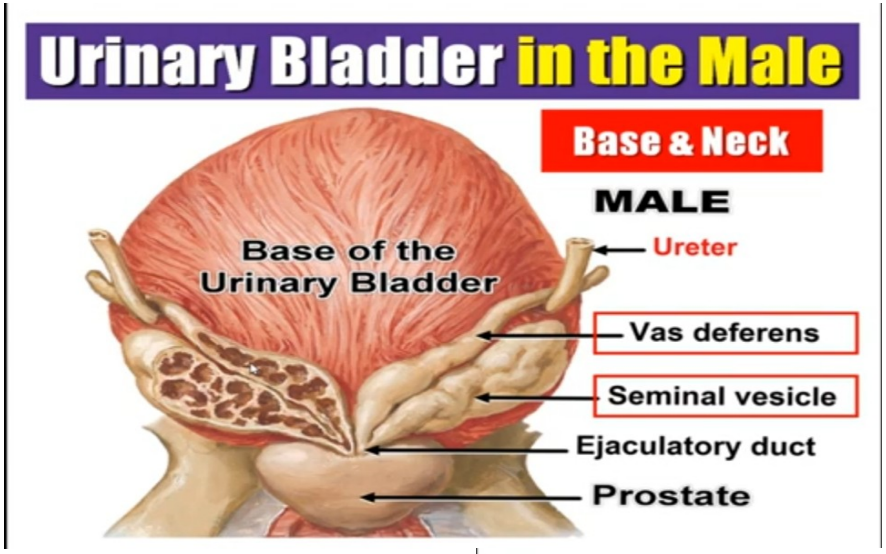


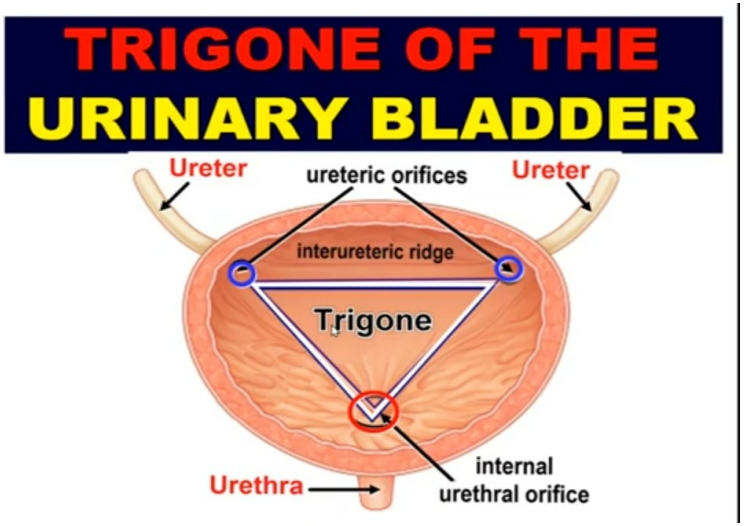
Male & Female Pelvis





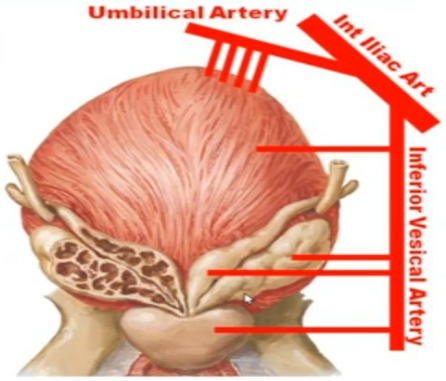
Urinary Bladder



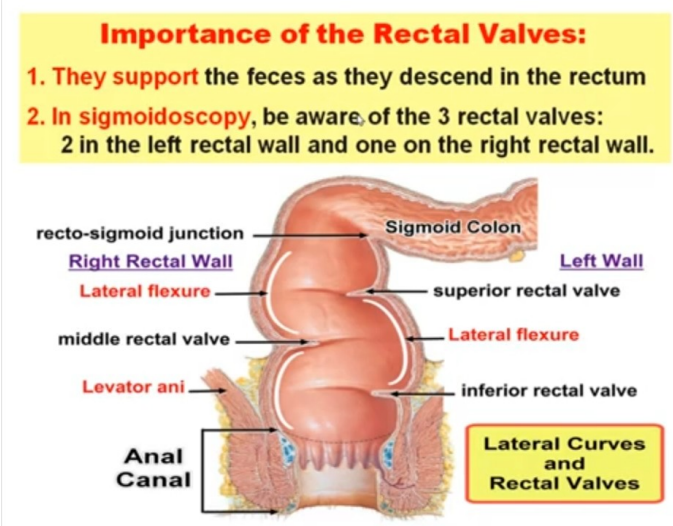


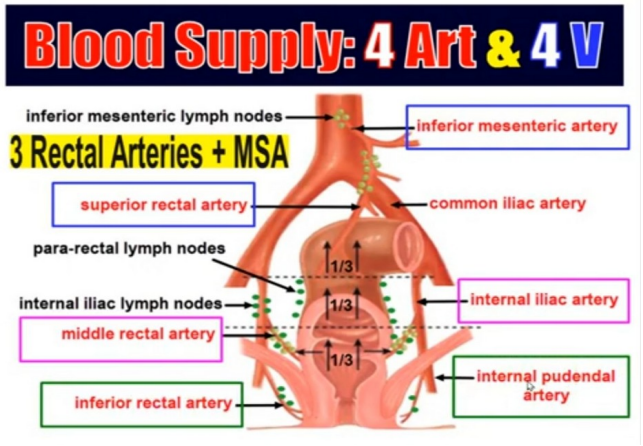
BLOOD SUPPLY

1. **Superior Vesical Artery:**
   - in both male & female
   - from the umbilical artery
2. **Inferior Vesical Artery:**
   - in the male
   - from the internal iliac art
3. **Vaginal Artery:**
   - in the female
   - from the internal iliac art



Rectum


Importance of the Rectal Valves:
1. They support the feces as they descend in the rectum
2. In sigmoidoscopy, be aware of the 3 rectal valves:
2 in the left rectal wall and one on the right rectal wall.
recto-sigmoid junction
Sigmoid Colon
Right Rectal Wall
Left Wall
Lateral flexure
superior rectal valve
middle rectal valve
Lateral flexure
Levator ani
inferior rectal valve
Anal Canal
Lateral Curves and Rectal Valves

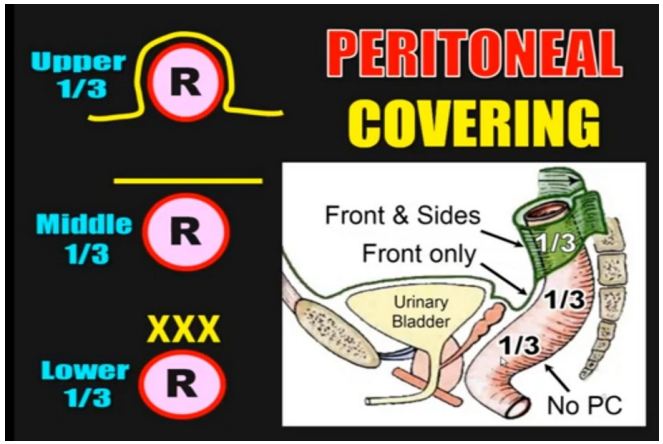


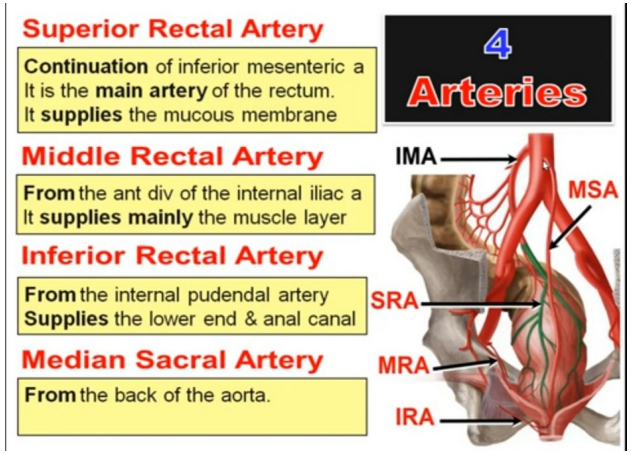
Nerve Supply of the Rectum

By the pelvic plexus
(inferior hypogastric plexus)
on each side of the rectum

Sympathetic Fibers:
From the lumbar splanchnic nerves (L1 & L2)
through the superior hypogastric plexus

Parasympathetic Fibers:
From the pelvic splanchnic nerves (S2, 3 & 4)

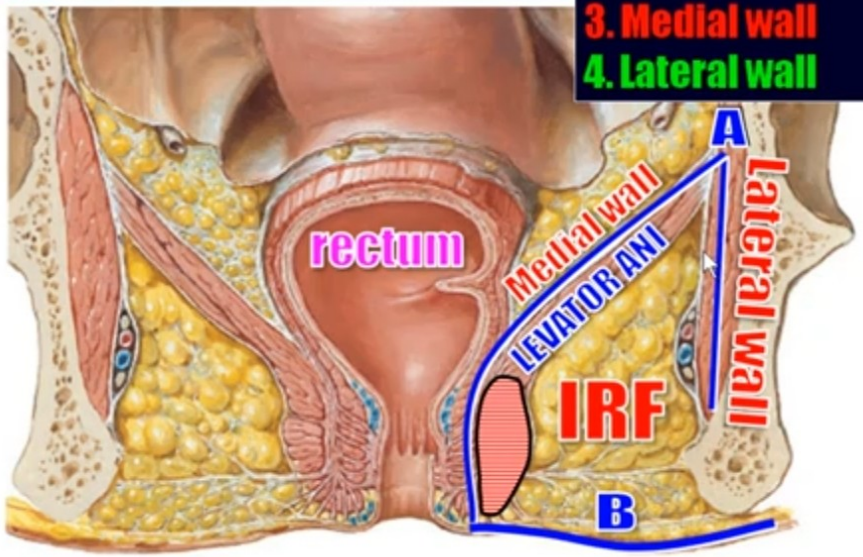




Ischiorectal Fossa

BOUNDARIES

1. Apex
2. Base
3. Medial wall
4. Lateral wall



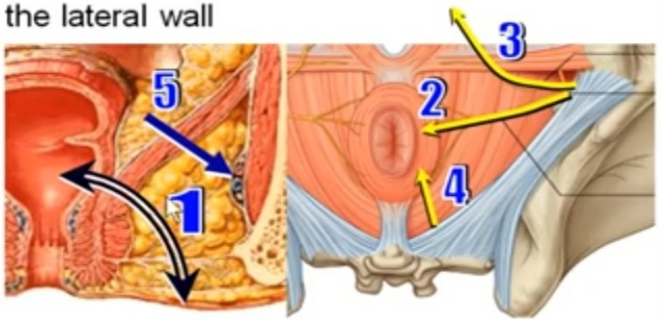
CONTENTS and CLINICAL IMPORTANCE

1. **Pad of fat:** allow distension of the anal canal
2. Inferior rectal nerve & vessels: in the middle to the anal canal
3. Labial or scrotal nerves & vessels: in the anterior part
4. Perineal branch of the 4th sacral nerve: in the posterior part to the external anal sphincter
5. Pudendal canal: in the lateral wall

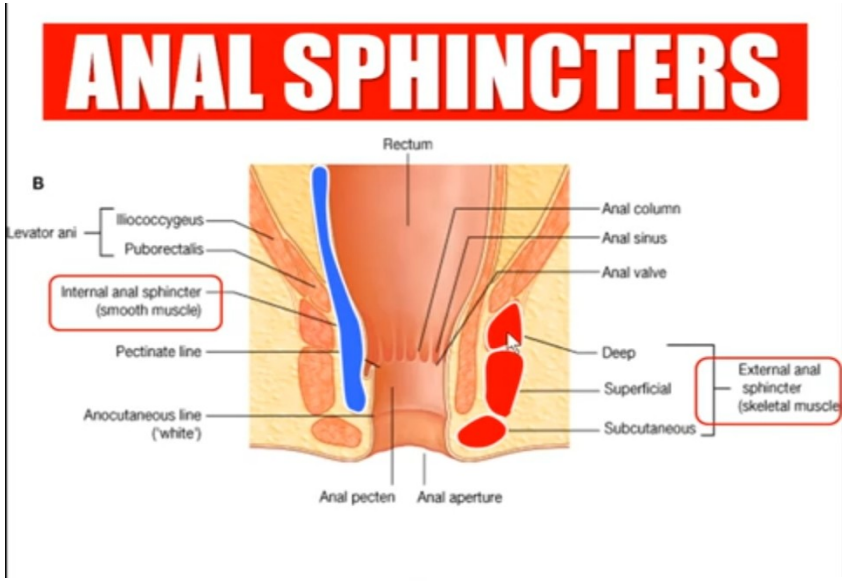
ABSCESS

⇩

FISTULA



Anal Canal & Pudindal Canal

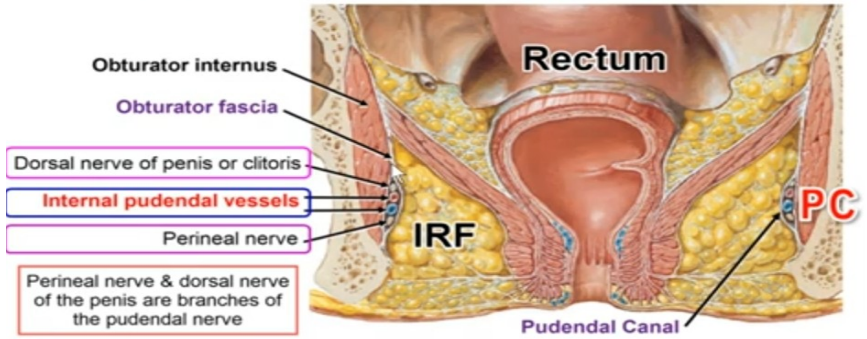


ANAL CANAL

	Upper Half	Lower Half
Development	Endoderm	Ectoderm
Lining Epithel.	Mucous membrane	Skin
Sphincter	Internal sphincter	External sphincter
Nerve Supply	Autonomic	Somatic: inf rectal nerve
Arterial Supply	Superior rectal artery	Inferior rectal artery
Venous Drainage	Superior rectal vein: Portal circulation	Inferior rectal vein: Systemic circulation
Lymph Drainage	Aortic lymph nodes	Superficial inguinal LN
Pain	Not sensitive	Sensitive

Pudendal Canal

Formed by splitting of the obturator fascia
In the lateral wall of the ischiorectal fossa



Uterus

MAIN SUPPORT: 3M + 3F

1. Muscular: 3
- a. Pelvic Diaphragm
- b. Urogenital Diaphragm
- c. Perineal Body

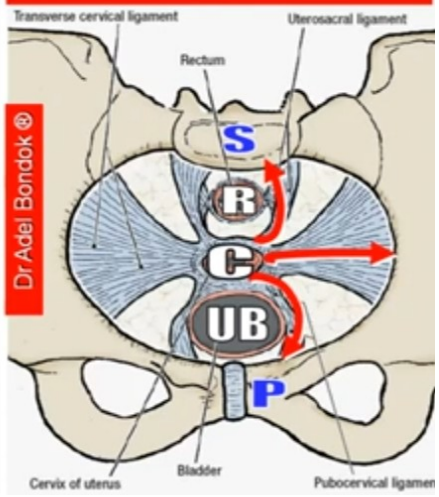
2. Fibrous or Fascial: 3
- a. Pubocervical ligament: between cervix & pubis
- b. Sacrocervical ligament: between cervix & sacrum
- c. Transverse cervical ligament: called cardinal ligament: between cervix & lateral wall

MINOR SUPPORT: 3 Ligaments
1. Broad ligament
2. Round ligament of the uterus
3. Ligament of the ovary

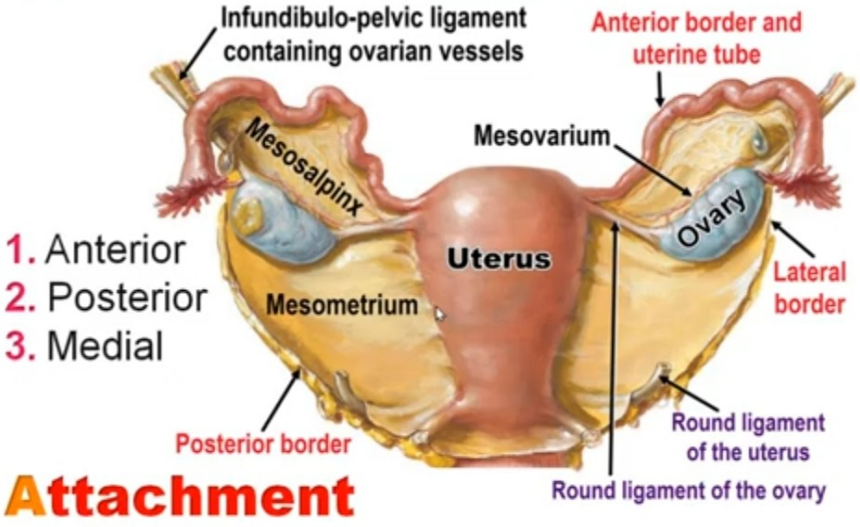
CLINICAL IMPORTANCE

Any weakness causes:
1. Prolapse of the uterus
2. Retroverted uterus

UTERINE SUPPORT



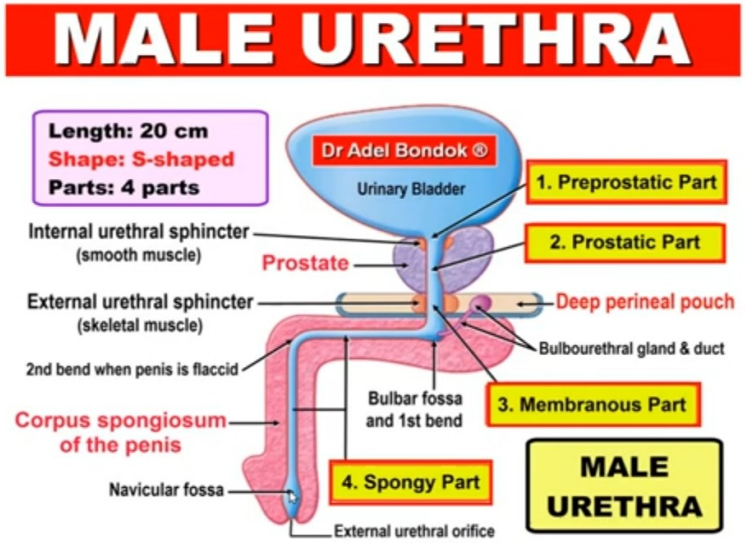
Broad Ligament

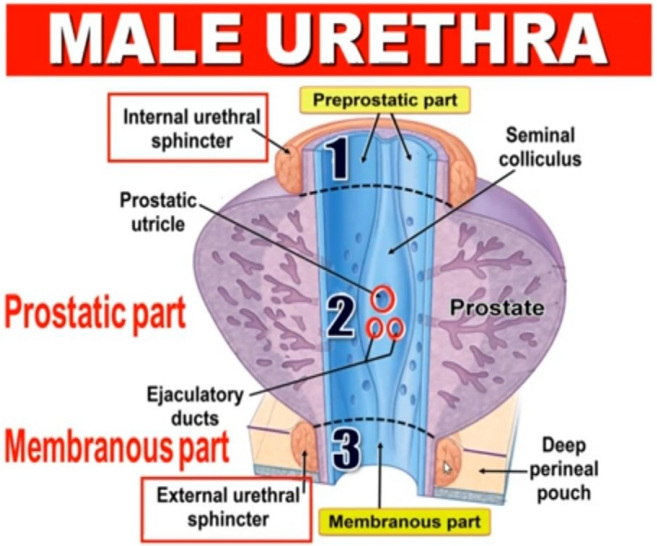


1. Anterior
2. Posterior
3. Medial

Attachment

Male Urethra

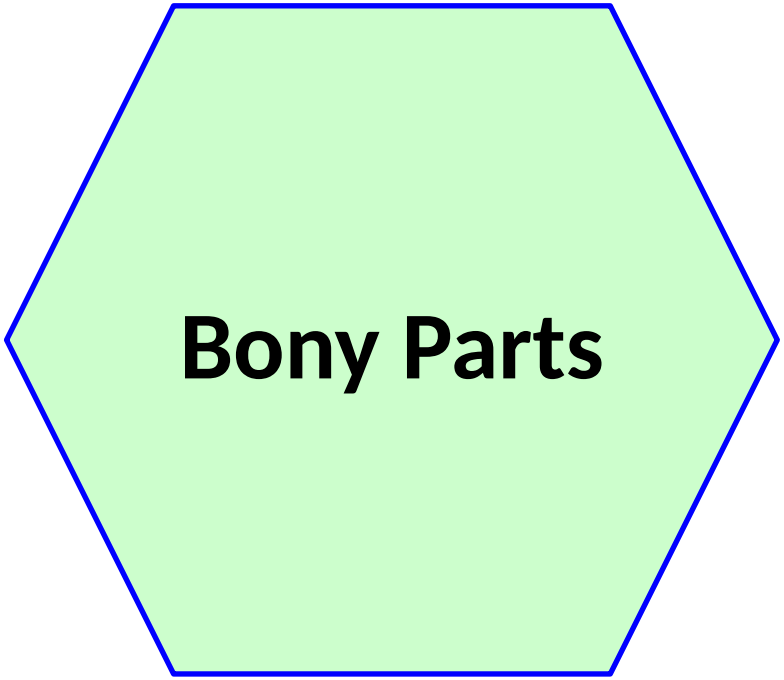




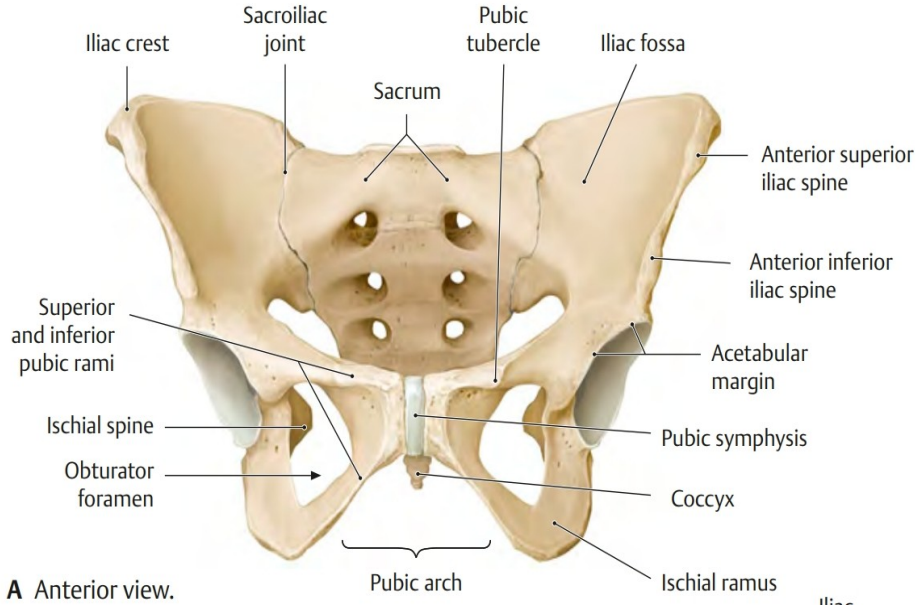
MALE URETHRA

Prostatic	Membranous	Spongy
1 inch	0.5 inch	6 inches
In the prostate	In the deep perineal pouch	In the bulb and corpus spongiosum
Widest part	Narrowest part	Has 2 dilatations: 1. Bulbar fossa 2. Navicular fossa
Receives openings: 1. Ejaculatory duct 2. Prostatic utricle	Surrounded by external urethral sphincter	Receives openings of bulbourethral glands

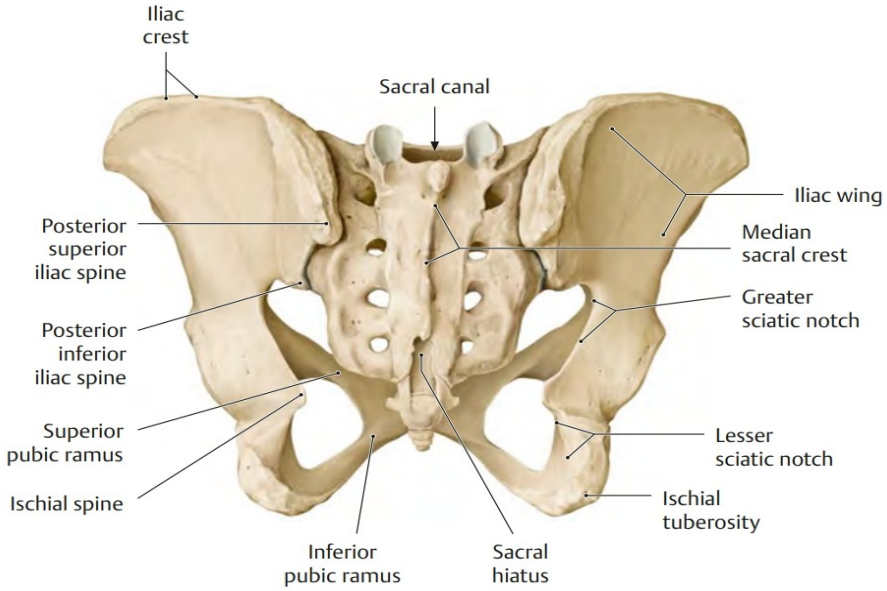
ANATOMY LAB OF THE PELVIS


Bony Parts

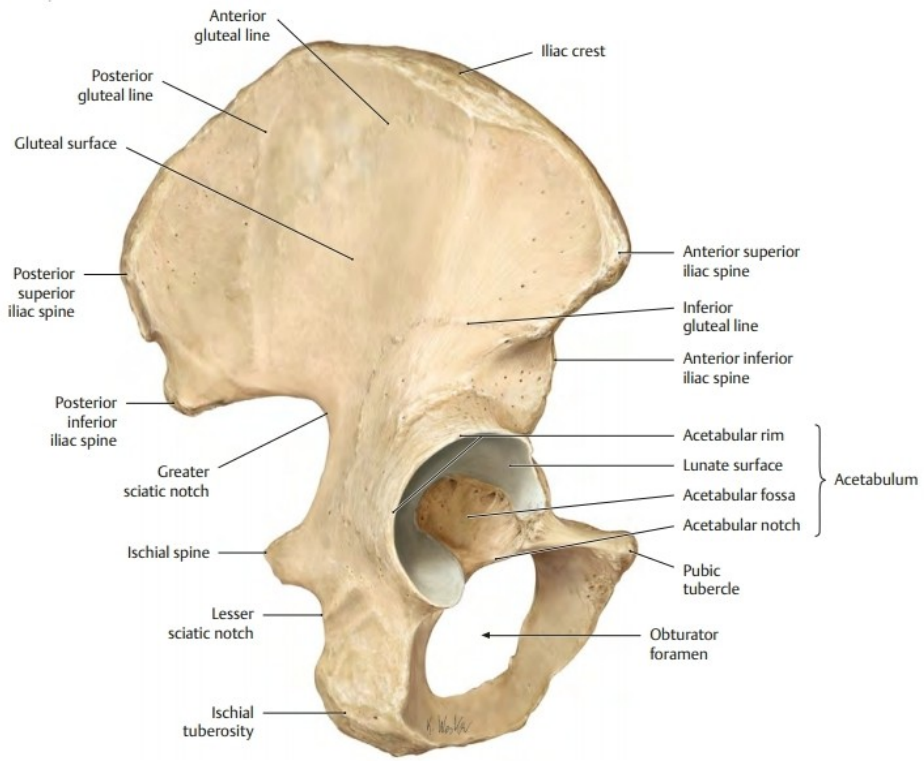
Hip Bone

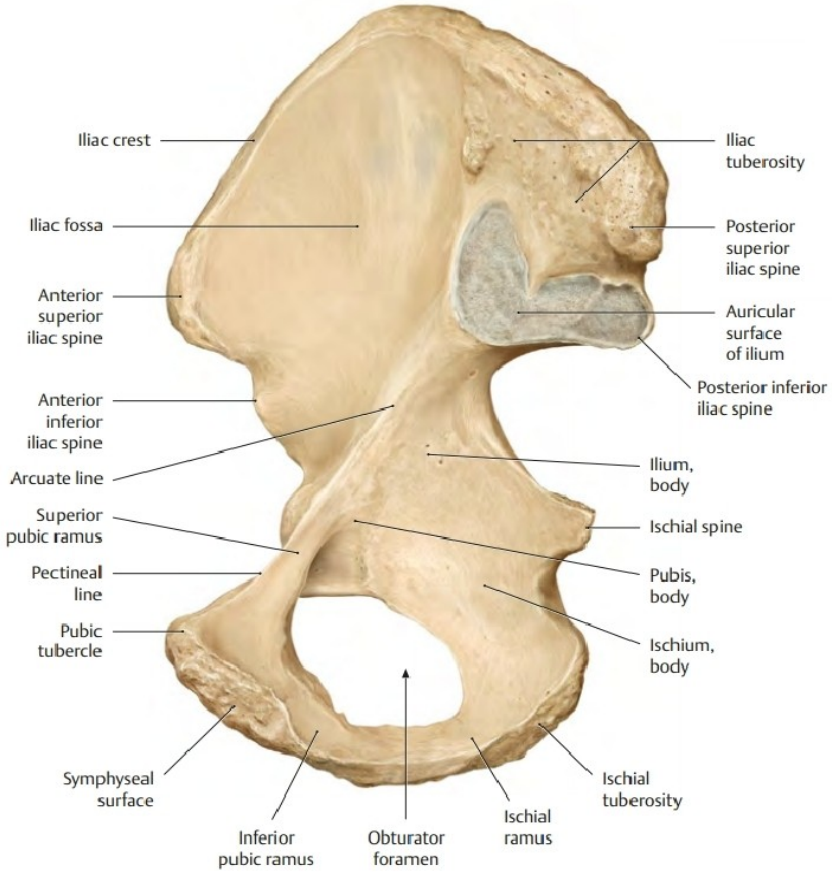


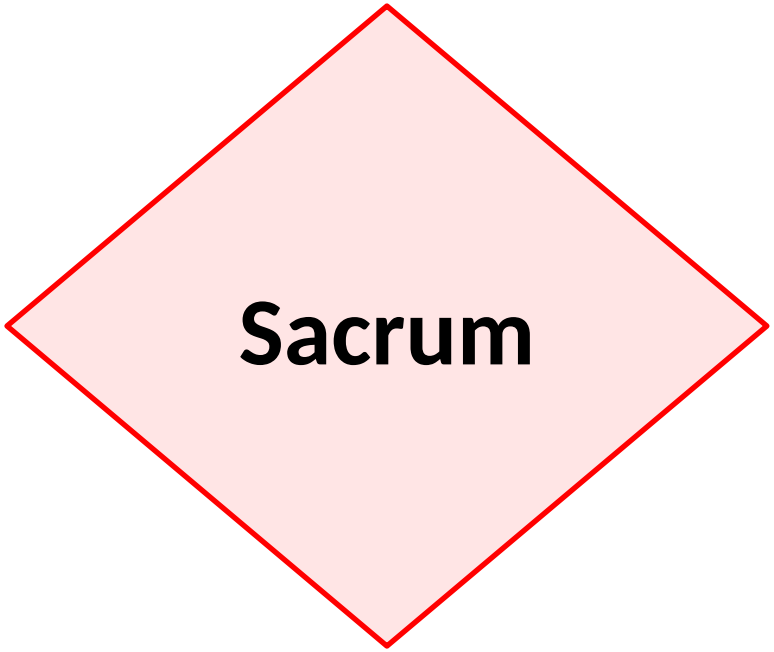
A Anterior view.

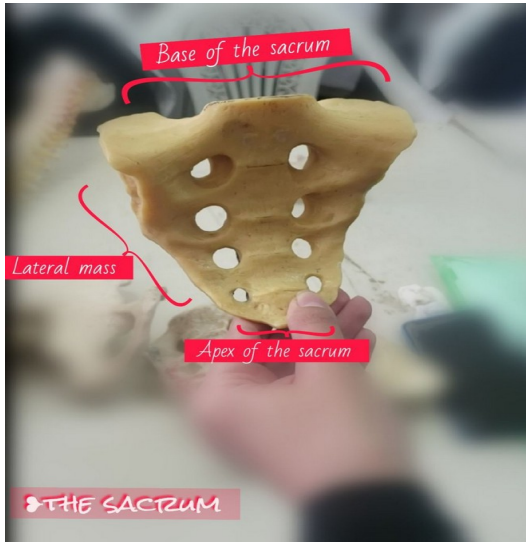


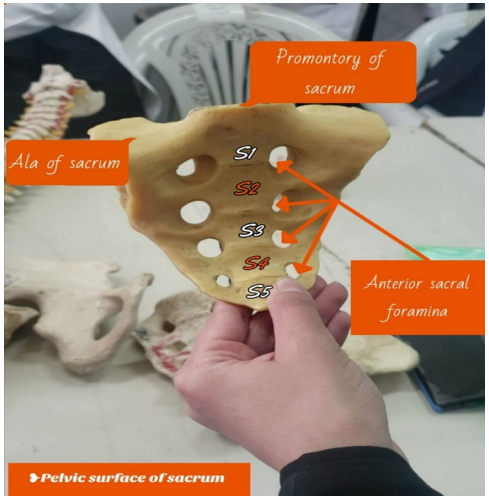
B Posterior view.

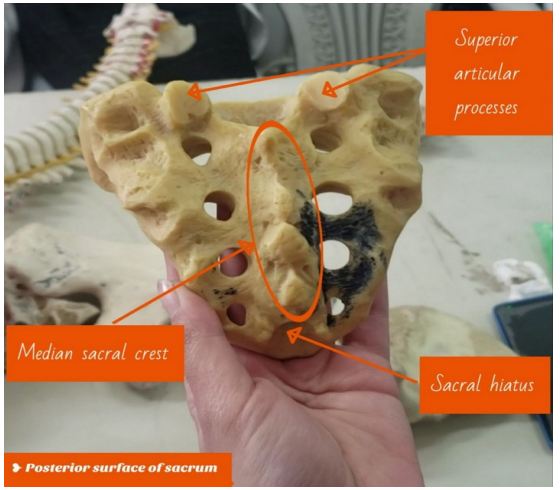

Anterior gluteal line
Iliac crest
Posterior gluteal line
Gluteal surface
Posterior superior iliac spine
Anterior superior iliac spine
Inferior gluteal line
Anterior inferior iliac spine
Posterior inferior iliac spine
Acetabular rim
Lunate surface
Acetabulum
Greater sciatic notch
Acetabular fossa
Acetabular notch
Ischial spine
Pubic tubercle
Lesser sciatic notch
Obturator foramen
Ischial tuberosity

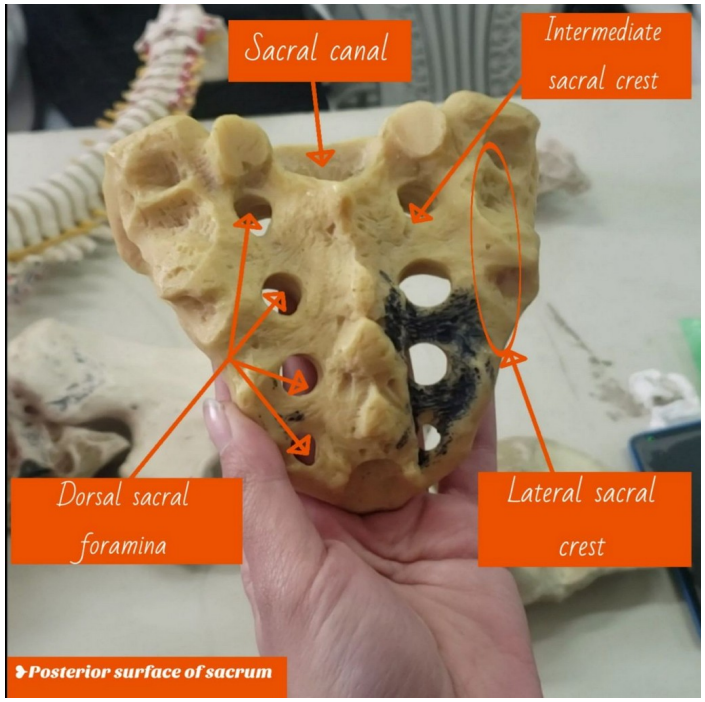

Iliac crest
Iliac tuberosity
Iliac fossa
Posterior superior iliac spine
Anterior superior iliac spine
Auricular surface of ilium
Posterior inferior iliac spine
Anterior inferior iliac spine
Arcuate line
Ilium, body
Superior pubic ramus
Ischial spine
Pubis, body
Pectineal line
Pubic tubercle
Ischium, body
Symphyseal surface
Ischial tuberosity
Inferior pubic ramus
Obturator foramen
Ischial ramus

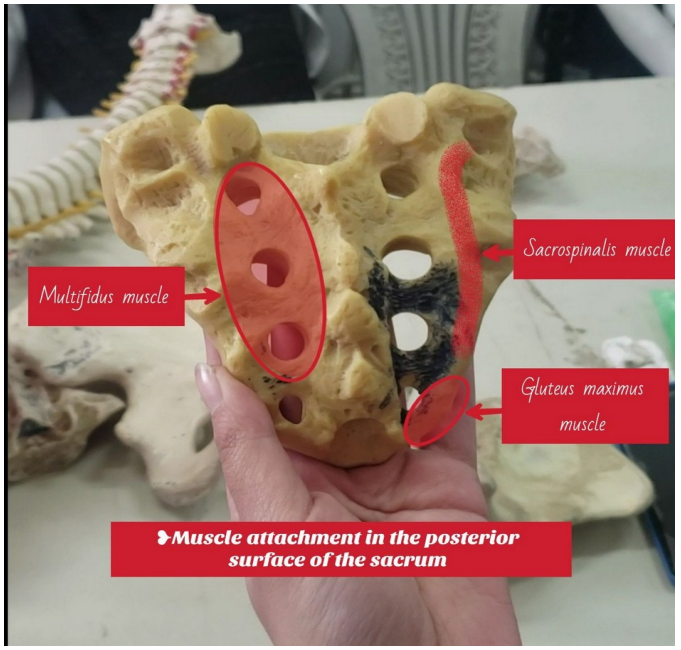

Sacrum


Base of the sacrum
Lateral mass
Apex of the sacrum
THE SACRUM

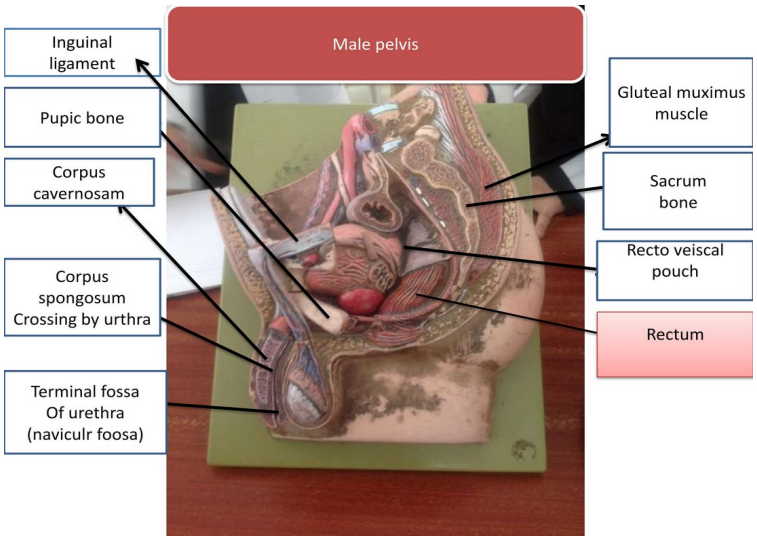

Promontory of sacrum
Ala of sacrum
S1
S2
S3
S4
S5
Anterior sacral foramina
Pelvic surface of sacrum

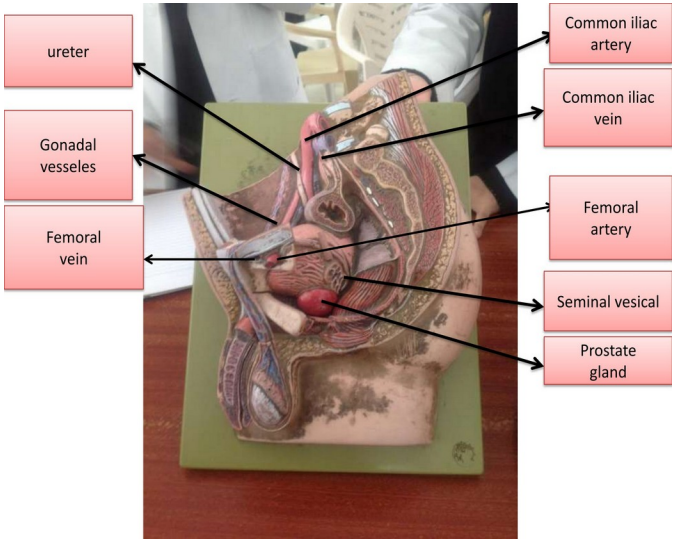

Superior articular processes
Median sacral crest
Sacral hiatus
Posterior surface of sacrum

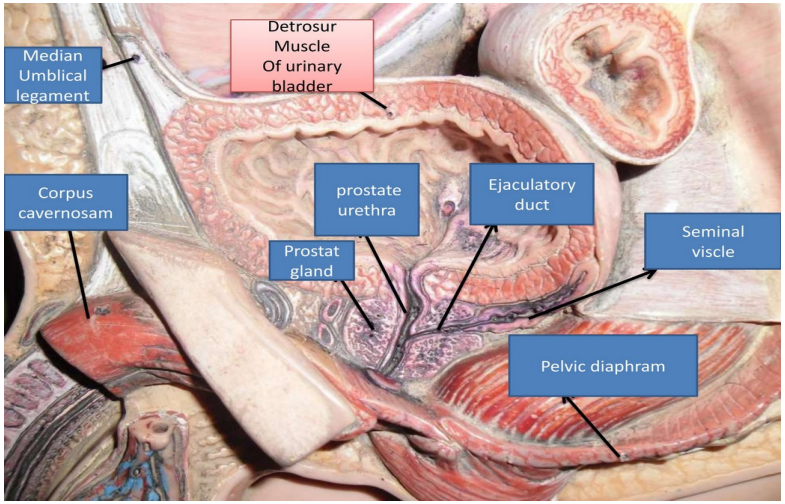

Sacral canal
Intermediate sacral crest
Dorsal sacral foramina
Lateral sacral crest
Posterior surface of sacrum

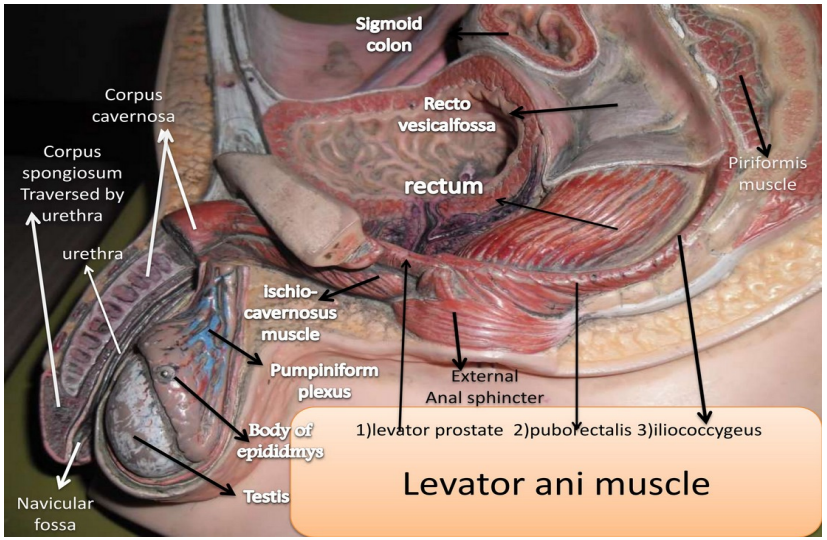

Multifidus muscle
Sacrospinalis muscle
Gluteus maximus muscle
Muscle attachment in the posterior surface of the sacrum

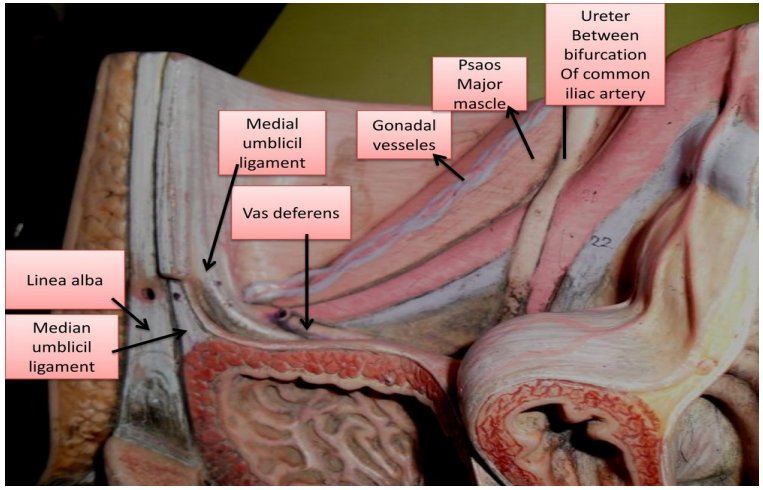
Male Pelvis

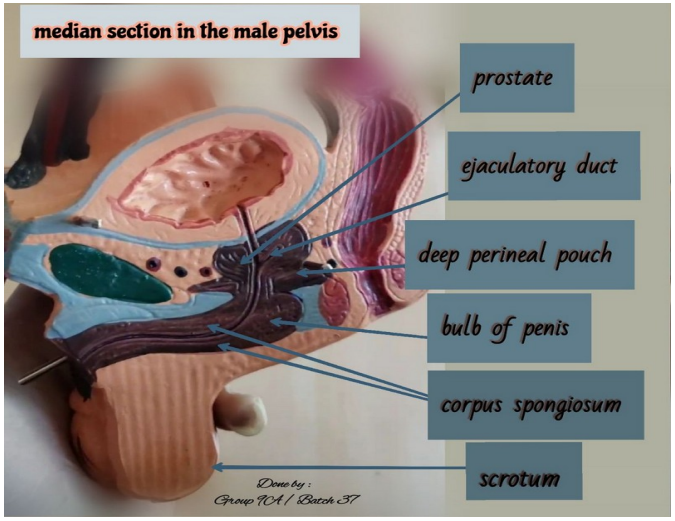

Male pelvis
Inguinal ligament
Pupic bone
Corpus cavernosam
Corpus spongosum Crossing by urthra
Terminal fossa Of urethra (naviculr foosa)
Gluteal muximus muscle
Sacrum bone
Recto veiscal pouch
Rectum

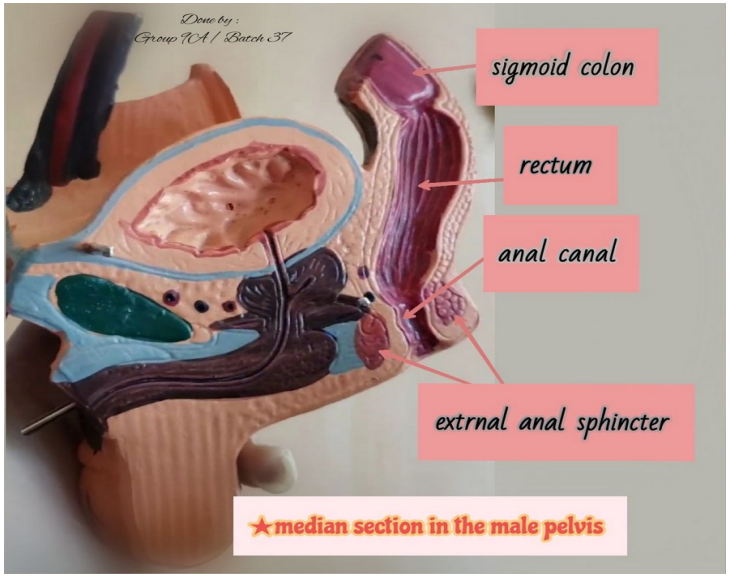

ureter
Gonadal vesseles
Femoral vein
Common iliac artery
Common iliac vein
Femoral artery
Seminal vesical
Prostate gland

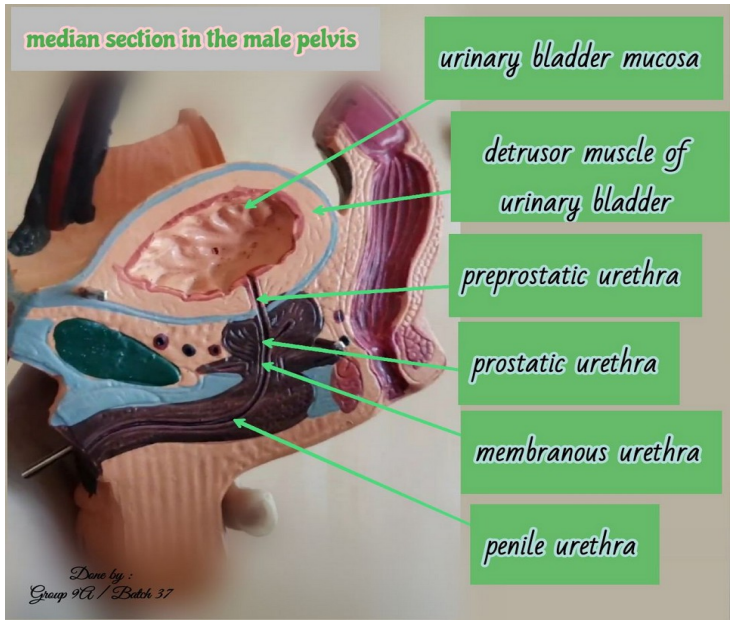

Median Umblical legament
Detrosur Muscle Of urinary bladder
Corpus cavernosam
prostate urethra
Ejaculatory duct
Prostat gland
Seminal viscle
Pelvic diaphram

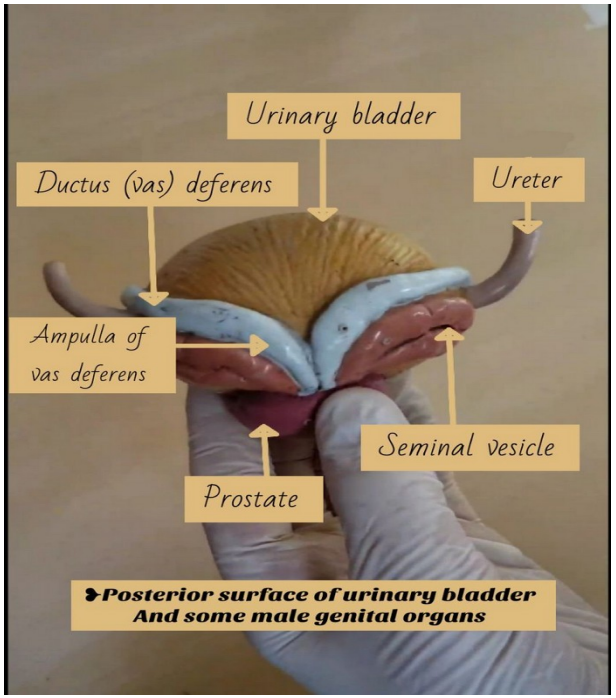

Sigmoid colon
Corpus cavernosa
Recto vesicalfossa
Corpus spongiosum Traversed by urethra
rectum
Piriformis muscle
urethra
Ischio-cavernosus muscle
Pumpiniform plexus
External Anal sphincter
Body of epididmys
1)levator prostate 2)puborectalis 3)iliococcygeus
Testis
Navicular fossa
Levator ani muscle

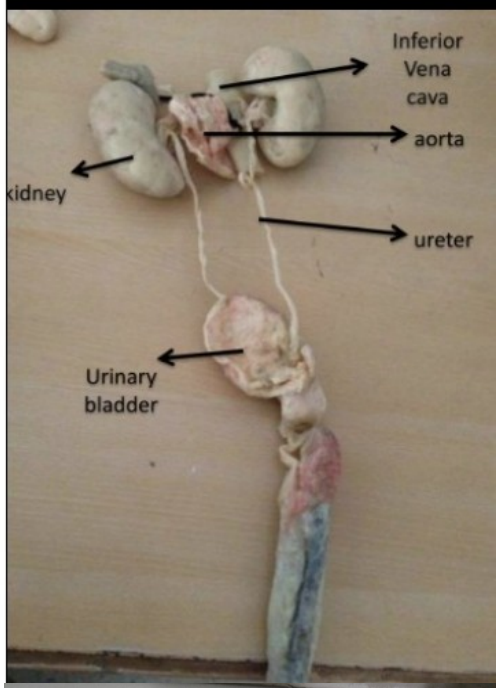

Ureter
Between
bifurcation
Of common
iliac artery
Psaos
Major
mascle
Medial
umblicil
ligament
Gonadal
vesseles
Vas deferens
Linea alba
Median
umblicil
ligament

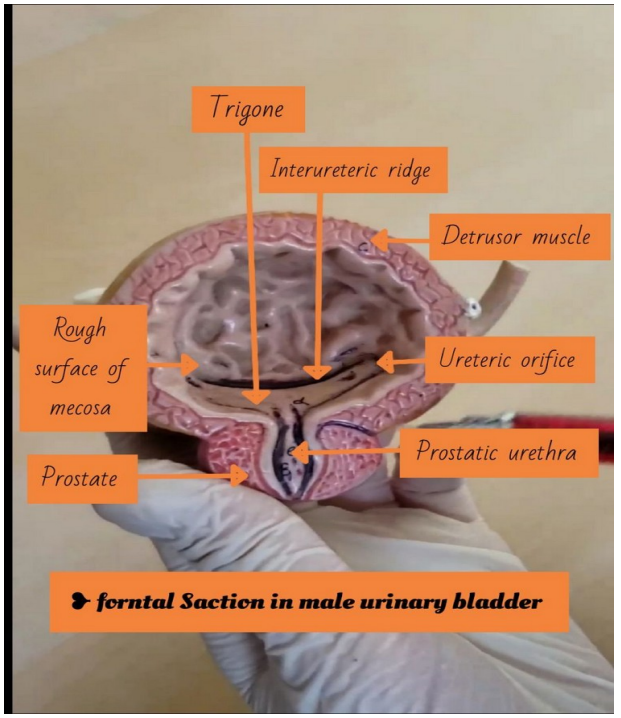

median section in the male pelvis
prostate
ejaculatory duct
deep perineal pouch
bulb of penis
corpus spongiosum
scrotum
Done by :
Group 9A / Batch 37

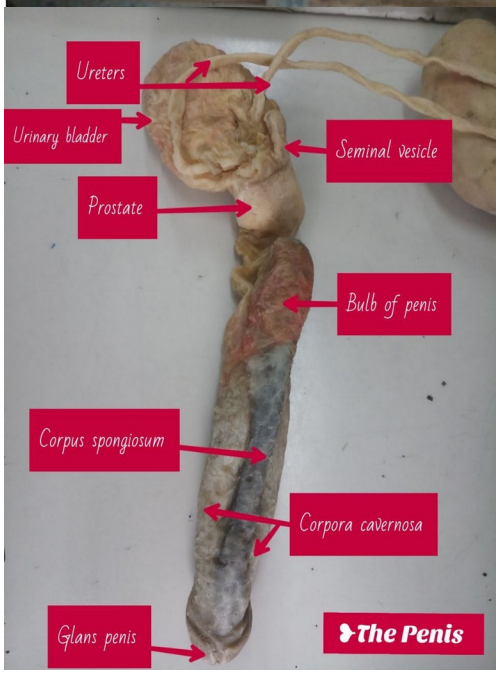

Done by :
Group 9A / Batch 37
sigmoid colon
rectum
anal canal
extrnal anal sphincter
★median section in the male pelvis


median section in the male pelvis
urinary bladder mucosa
detrusor muscle of
urinary bladder
preprostatic urethra
prostatic urethra
membranous urethra
penile urethra
Done by :
Group 9A / Batch 37

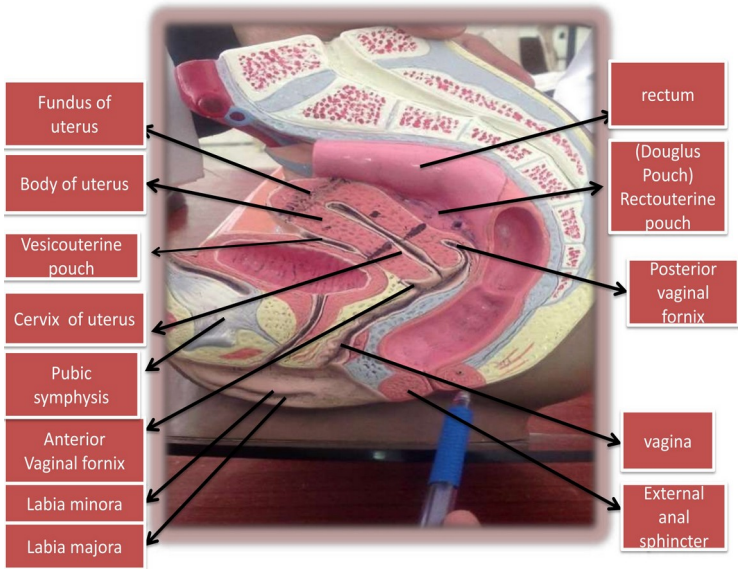

Urinary bladder
Ductus (vas) deferens
Ureter
Ampulla of vas deferens
Seminal vesicle
Prostate
Posterior surface of urinary bladder
And some male genital organs

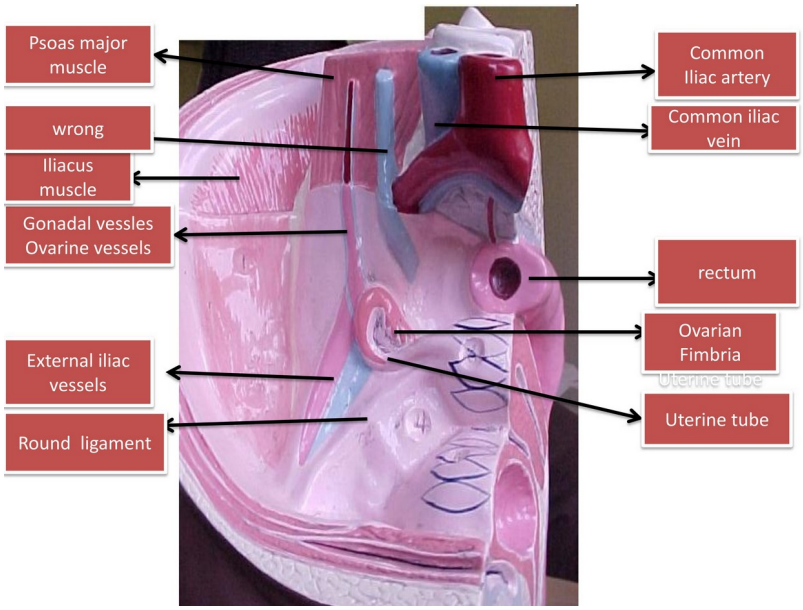

Inferior Vena cava
aorta
kidney
ureter
Urinary bladder

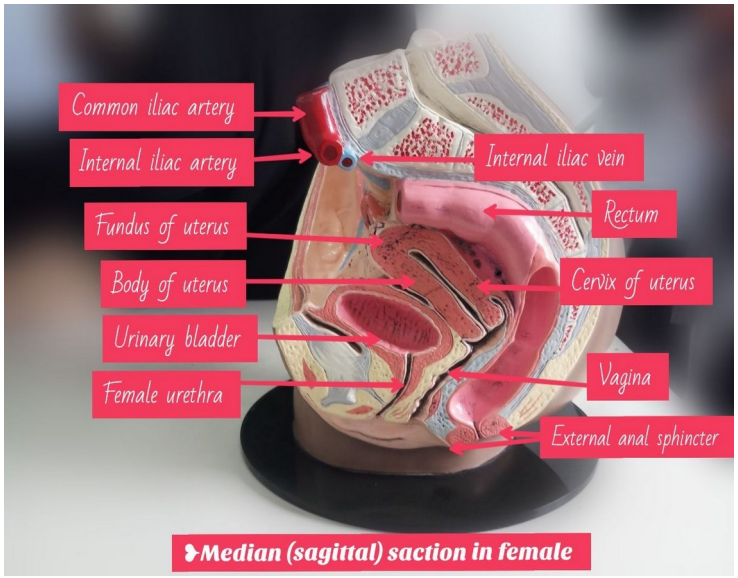

Trigone
Interureteric ridge
Detrusor muscle
Rough surface of mecosa
Ureteric orifice
Prostatic urethra
Prostate
forntal Saction in male urinary bladder

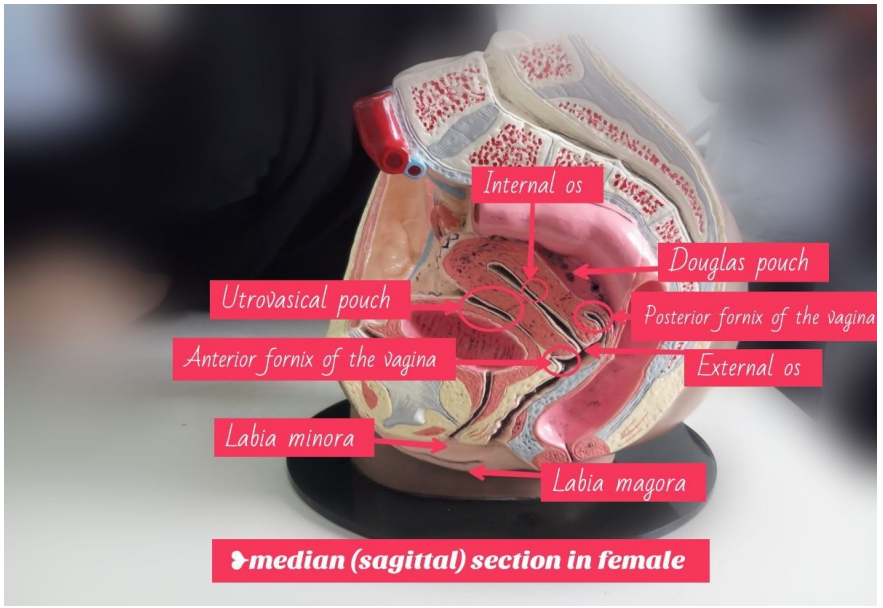

Ureters
Urinary bladder
Seminal vesicle
Prostate
Bulb of penis
Corpus spongiosum
Corpora cavernosa
Glans penis
The Penis

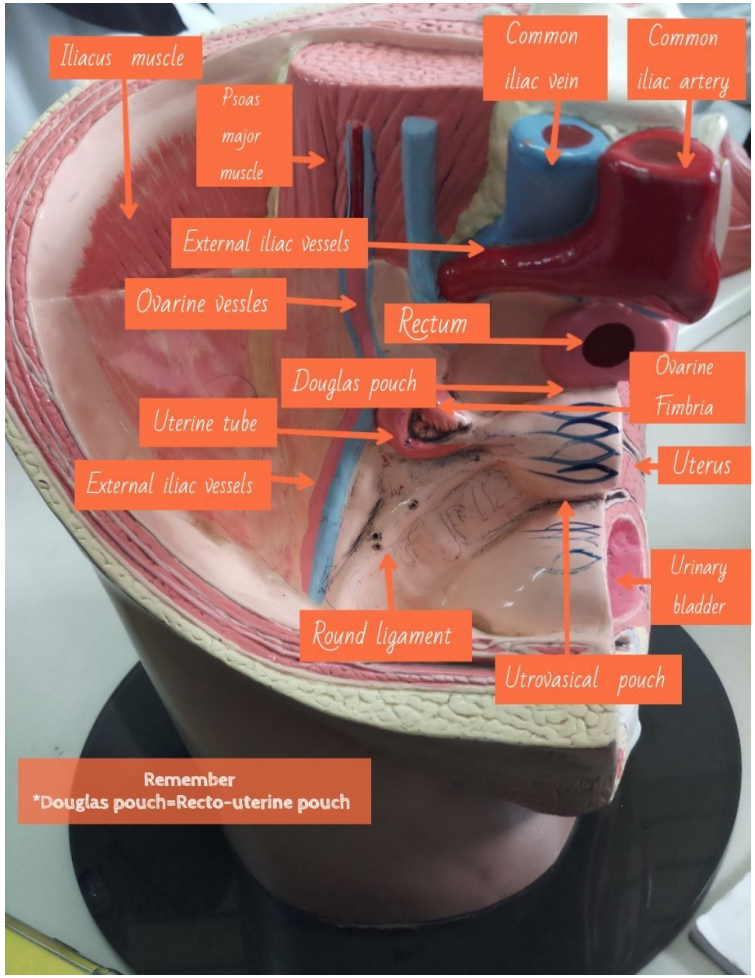
Female Pelvis

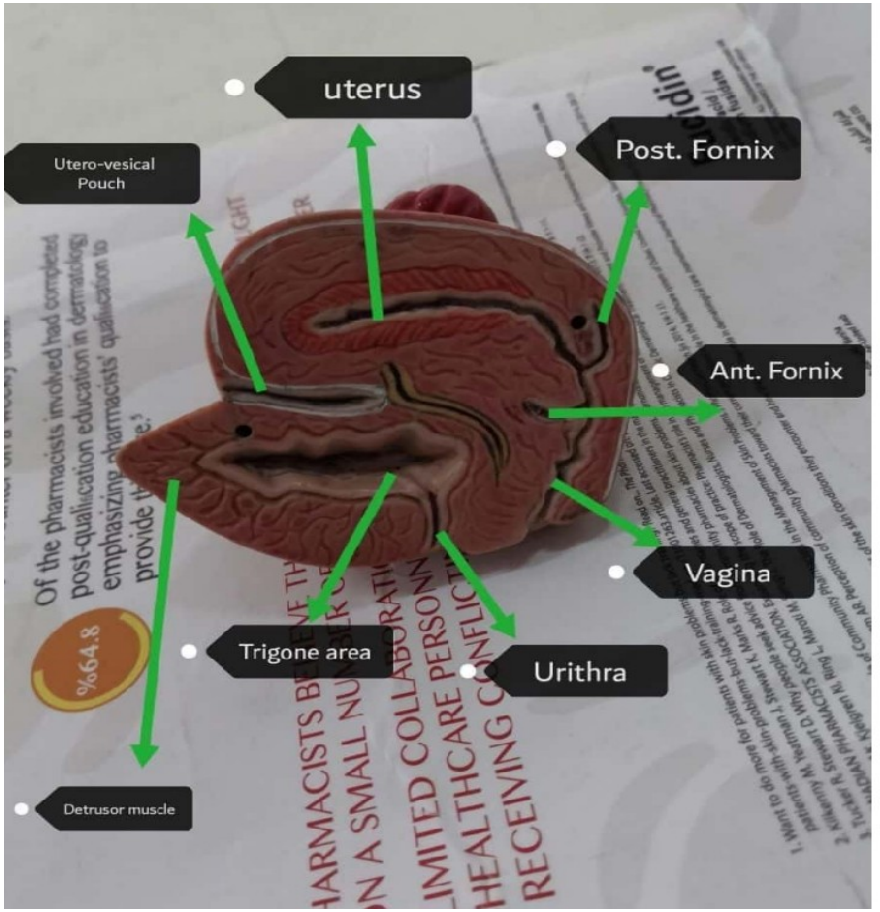

Fundus of uterus
Body of uterus
Vesicouterine pouch
Cervix of uterus
Pubic symphysis
Anterior Vaginal fornix
Labia minora
Labia majora
rectum
(Douglus Pouch) Rectouterine pouch
Posterior vaginal fornix
vagina
External anal sphincter

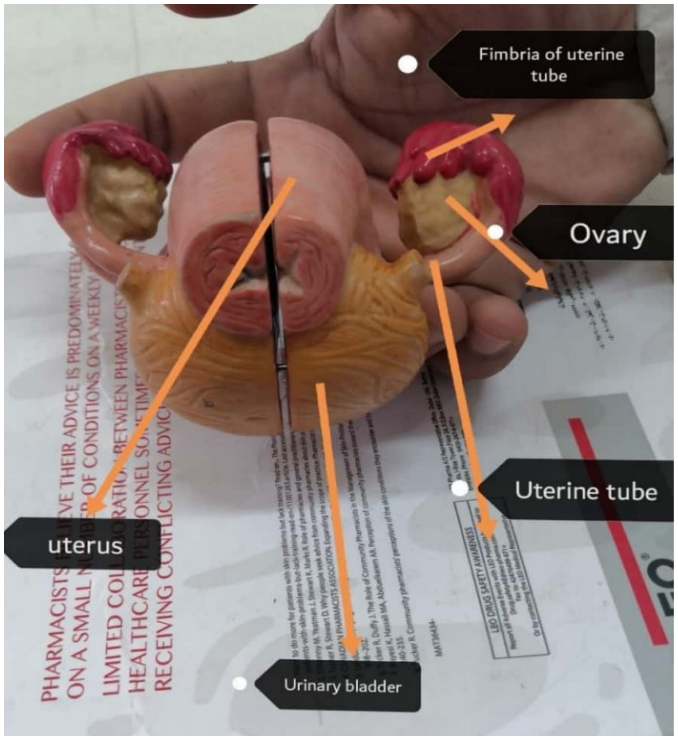

Psoas major muscle
wrong
Iliacus muscle
Gonadal vessles Ovarine vessels
External iliac vessels
Round ligament
Common Iliac artery
Common iliac vein
rectum
Ovarian Fimbria
Uterine tube
Uterine tube

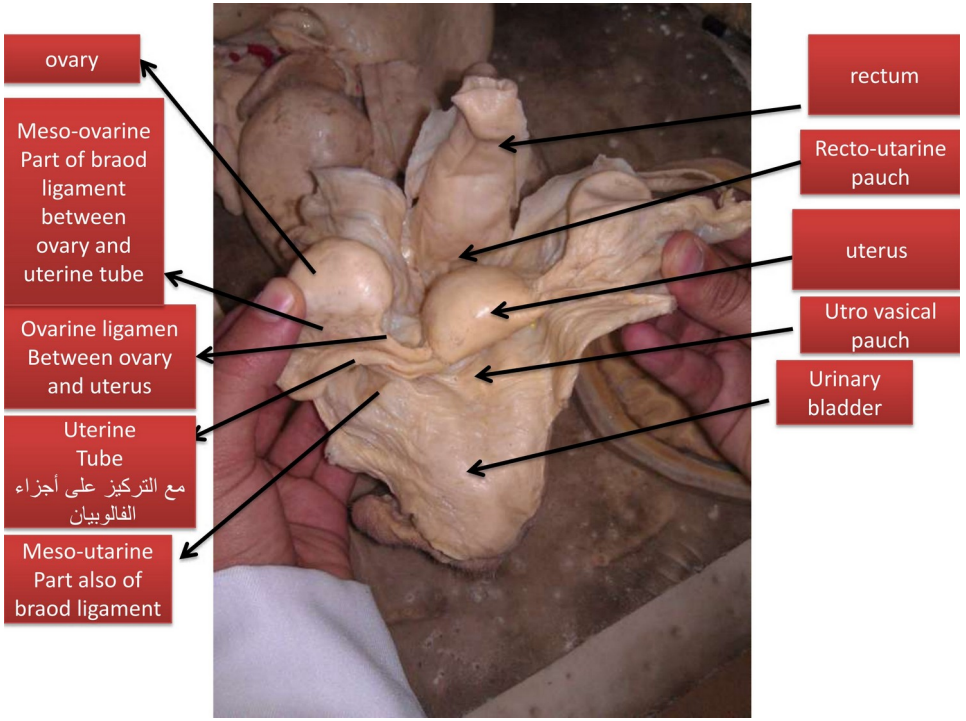

Common iliac artery
Internal iliac artery
Internal iliac vein
Fundus of uterus
Rectum
Body of uterus
Cervix of uterus
Urinary bladder
Female urethra
Vagina
External anal sphincter
Median (sagittal) saction in female

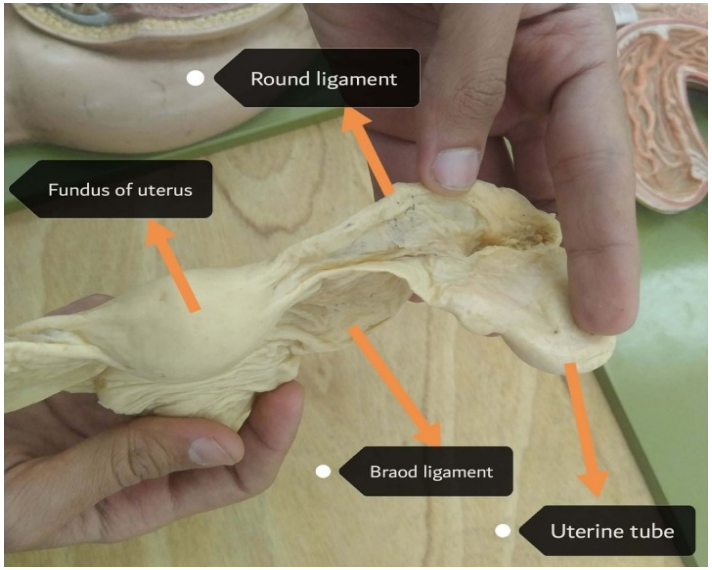

Internal os
Douglas pouch
Utrovasical pouch
Posterior fornix of the vagina
Anterior fornix of the vagina
External os
Labia minora
Labia magora
median (sagittal) section in female

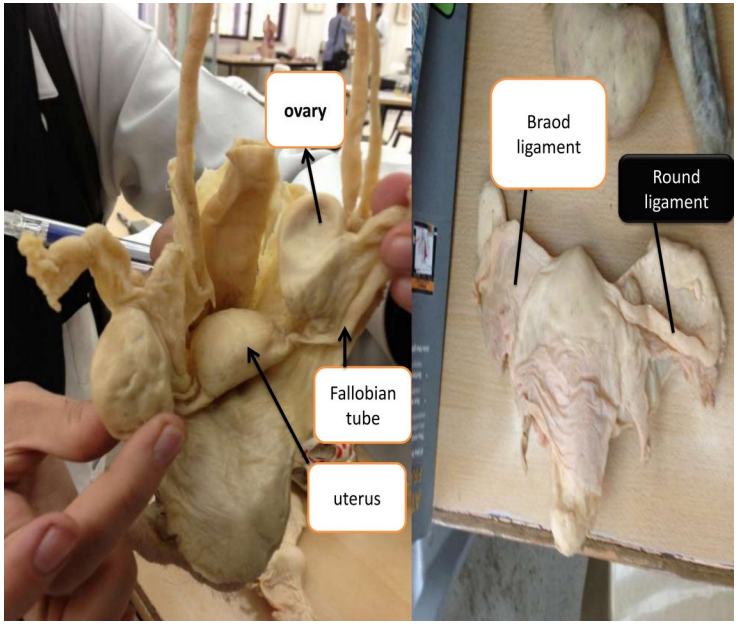

Iliacus muscle
Psoas major muscle
Common iliac vein
Common iliac artery
External iliac vessels
Ovarine vessles
Rectum
Douglas pouch
Ovarine Fimbria
Uterine tube
Uterus
External iliac vessels
Urinary bladder
Round ligament
Utrovasical pouch
Remember
*Douglas pouch=Recto-uterine pouch

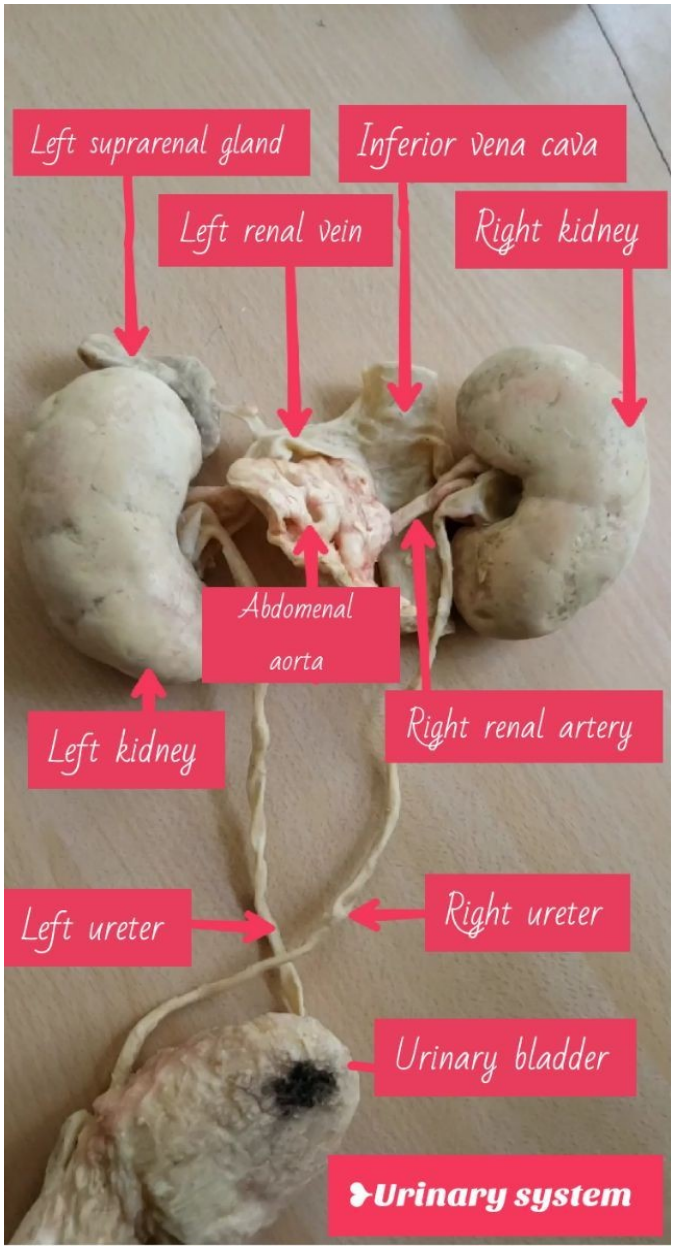

uterus
Utero-vesical Pouch
Post. Fornix
Ant. Fornix
Vagina
Urithra
Trigone area
Detrusor muscle
%64.8

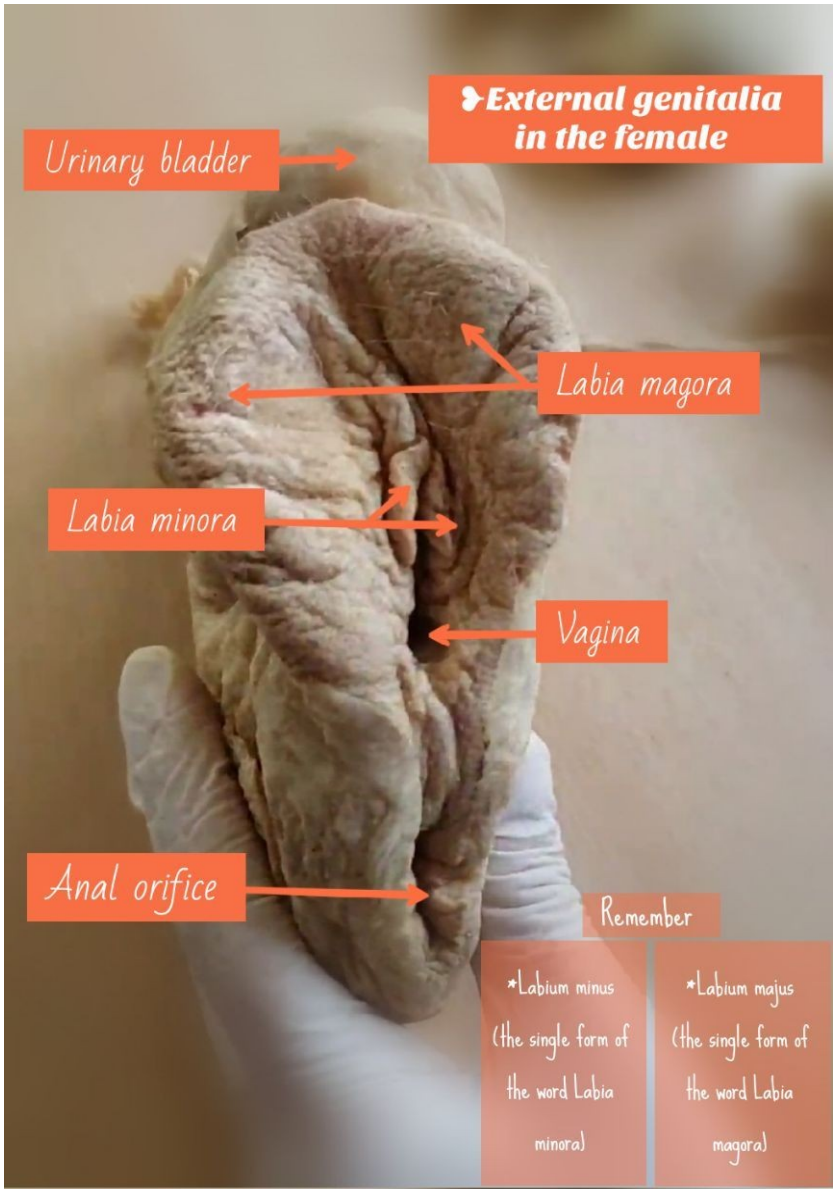

Fimbria of uterine tube
Ovary
Uterine tube
uterus
Urinary bladder


ovary
Meso-ovarine Part of braod ligament between ovary and uterine tube
Ovarine ligamen Between ovary and uterus
Uterine Tube مع التركيز على أجزاء الفالوبيان
Meso-utarine Part also of braod ligament
rectum
Recto-utarine pauch
uterus
Utro vasical pauch
Urinary bladder

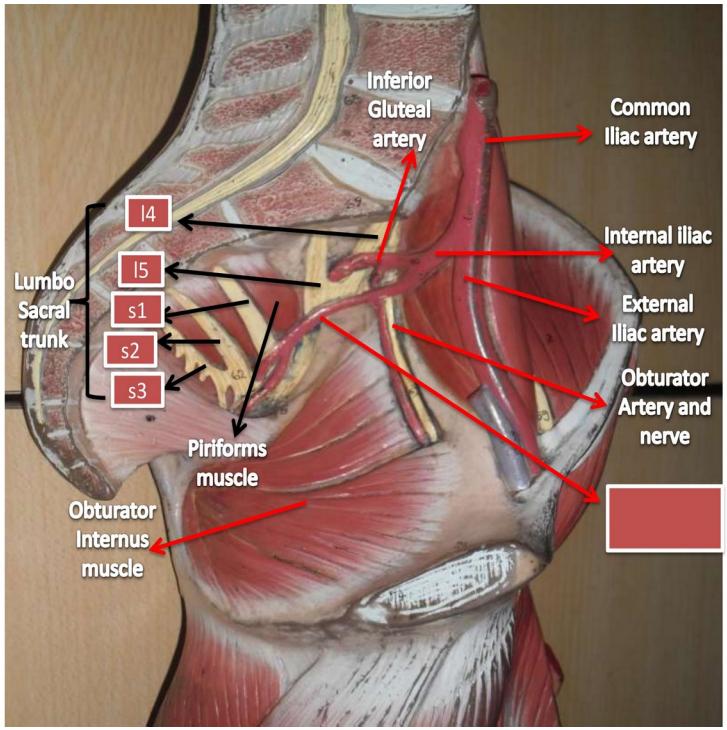

Round ligament
Fundus of uterus
Braod ligament
Uterine tube

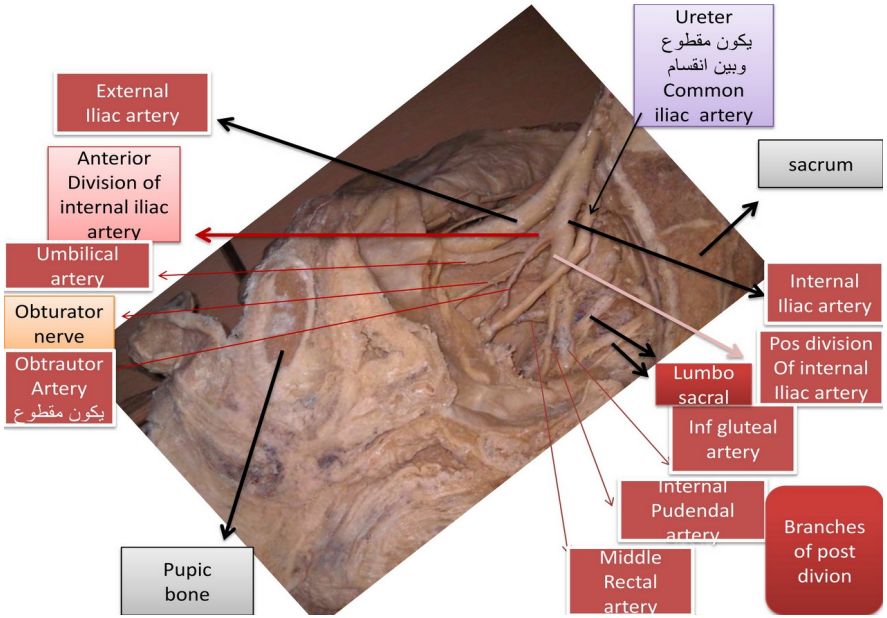

ovary
Fallobian tube
uterus
Braod ligament
Round ligament


Left suprarenal gland
Inferior vena cava
Left renal vein
Right kidney
Abdomenal aorta
Left kidney
Right renal artery
Left ureter
Right ureter
Urinary bladder
Urinary system

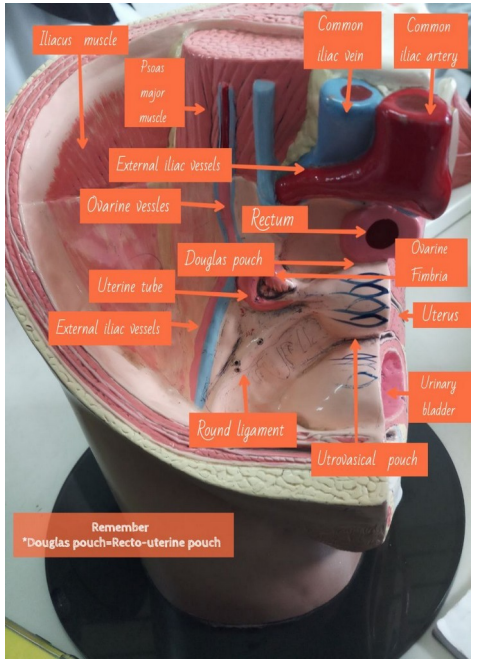

External genitalia in the female
Urinary bladder
Labia magora
Labia minora
Vagina
Anal orifice
Remember
*Labium minus (the single form of the word Labia minora)
*Labium majus (the single form of the word Labia magora)

Blood Vessels Of The Pelvis


Inferior Gluteal artery
Common Iliac artery
Internal iliac artery
External Iliac artery
Obturator Artery and nerve
Lumbo Sacral trunk
l4
l5
s1
s2
s3
Piriforms muscle
Obturator Internus muscle


Ureter
يكون مقطوع
وبين انقسام
Common iliac artery
External Iliac artery
sacrum
Anterior Division of internal iliac artery
Umbilical artery
Obturator nerve
Obtrautor Artery
يكون مقطوع
Internal Iliac artery
Pos division Of internal Iliac artery
Lumbo sacral
Inf gluteal artery
Internal Pudendal artery
Branches of post divion
Middle Rectal artery
Pupic bone

Common iliac artery
Posterior division of Internal iliac artery
Anterior division of Internal iliac artery
Obturator artery
External iliac vein
Internal iliac artery
External iliac artery
Arteries of the pelvis


Iliacus muscle
Psoas major muscle
Common iliac vein
Common iliac artery
External iliac vessels
Ovarine vessles
Rectum
Douglas pouch
Ovarine Fimbria
Uterine tube
Uterus
External iliac vessels
Urinary bladder
Round ligament
Utrovasical pouch
Remember
*Douglas pouch=Recto-uterine pouch

THANK YOU
FOR YOUR
ATTENTION